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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,974	08/18/2006	Kazuhito Niwano	295156US2PCT	2197

22850   7590   09/17/2009
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EXAMINER
LEBASSI, AMANUEL

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
09/17/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2006*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.
        4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-14* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *18 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
        Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
        Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
        a)☒ All   b)☐ Some *   c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
        Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
        Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Foore et al. **US**

6542481 in view of Fensch et al. **US 6307864.**

Regarding Claim 1, Foore discloses mobile station (**col. 3, line 61-65**

subscriber units therefore mobile station) having a transmit buffer for storing

data about a plurality of communication services on a communication-service-by-

communication-service basis or on a transmit-channel-by-transmit-channel (**col.**

3, line 61 - col. 4, line 15 – where Channel resources are allocated

according to a buffer monitoring scheme provided on forward and reverse

links between a base station and multiple subscriber units). Foore discloses

an amount-of-data information determining means for **outputting** the data which

are stored in said transmit buffer on a communication-service-by-communication-

service basis or on a transmit-channel-by-transmit-channel so as to determine

communication-service-by-communication-service or transmit-channel-by-

transmit-channel amount-of-data information (col. 3, lines 65-67 - **where each**

buffer is <u>monitored</u> over time for threshold levels of <u>data to be transmitted</u>

in that buffer) and a transmitting means for transmitting the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information determined by said amount-of-data information determining means to a base station (col. 4, lines 2-5 where **probability is calculated or determined that indicates how often that a specific buffer for a specific subscriber will need to transmit data and how much data will be transmitted).**

However, Foore is silent on monitoring the data which are stored in said transmit buffer. Fench teaches monitoring the data which are stored in said transmit buffer (col. 5, lines 19-25).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the invention of Foore and add monitoring the data which are stored in said transmit buffer. The motivation would be to use a network digital terminal containing a coder specific to the type of coding employed (col. 1, lines 58-61).

Regarding Claim 2, Fensch discloses the mobile station characterized in that said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a binary digit number, and outputs the amount-of-data information indicating the binary digit number to the transmitting means (**col. 5, lines 1-7**).

Regarding Claim 3, Fensch discloses the mobile station characterized in that said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a data occupation ratio of the transmit buffer, and outputs the amount-of-data information indicating the data occupation ratio to the transmitting means (**col. 2, lines 48-53 where the mobile outputs the data to the Base Station**).

Regarding Claim 4, Fensch discloses the mobile station characterized in that said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a time, and outputs the amount-of-data information indicating the time to the transmitting means (**col. 3, lines 40-53 where the sampled digital output signal is delivered at this same reading frequency where frequency is 1 divided by time period**).

Regarding Claim 5, Fensch discloses the mobile station characterized in that said amount-of-data information determining means converts the communication-service-by-communication-service or transmit-channel-by-transmit-channel amount-of-data information into a transmission rate, and

outputs the amount-of-data information indicating the transmission rate to the

transmitting means (**col. 5, lines 1-7**).

Regarding Claim 6, Fensch discloses in that said amount-of-data

information determining means converts the communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information into a number of bits per second or a number of bits

per unit time (**col. 2, lines 15-20**).

Regarding Claim 7, Foore discloses the mobile station characterized in

that said amount-of-data information determining means converts the

communication-service-by-communication-service or transmit-channel-by-

transmit-channel amount-of-data information into a channel amplitude coefficient

or a channel amplitude coefficient ratio, and outputs the amount-of-data

information indicating the channel amplitude coefficient or the channel amplitude

coefficient ratio to the transmitting means (**col. 3, lines 48-60**).

Regarding Claim 8, Foore discloses the mobile station characterized in

that said amount-of-data information determining means converts the

communication-service-by-communication-service or transmit-channel-by-

transmit-channel amount-of-data information into a power dimension or a power

dimension ratio, and outputs the amount-of-data information indicating the power

dimension or the power dimension ratio to the transmitting means (col. 7, lines
31-43).

Regarding Claim 9, the combination of above discloses the mobile station
characterized in that said amount-of-data information determining means outputs
an index indicating a combination of pieces of communication-service-by-
communication-service or transmit-channel-by-transmit-channel amount-of-data
information to the transmitting means, instead of the communication-service-by-
communication-service or transmit-channel-by-transmit-channel amount-of-data
information (see above).

Regarding claim 12, see similar rejection claim 1.

3.   Claims 10 and 13 is r ejected under 35 U.S.C. 103(a) as being unpatentable over
Thornberg et al. **US 5757772** in view of **Hamalainen** et al. **US RE39375.**

Regarding Claim 10, Thornberg discloses a base station (col. 4, line 7-16).
Thornberg discloses a receiving means for receiving communication-service-by-
communication-service or transmit-channel-by-transmit-channel amount-of-data
information from a mobile station (**Fig. 1, where mobile stations 120, 122, and
124 are shown to be communicating via radio interfaces 128, 130 and 132
with base stations 108, 112 and 116, respectively)**. Thornberg discloses an
assignment determining means for determining assignment of radio resources for

data on a communication-service-by-communication-service or transmit-channel-

by-transmit-channel basis according to the communication-service-by-

communication-service or transmit-channel-by-transmit-channel amount-of-data

information received by said receiving means (**col. 4, lines 51-55 where MCN**

102 assigns each mobile a virtual connection identifier (VCI) when it grants

access) and indicating the assignment of radio resources determined by said

assignment determining means to said mobile station (**col.11 , lines 29-34**

where a packet call update indication signal is sent to the user).

Thornberg is silent on a notifying means for notifying transmission control

information. However Hamalainen teaches on the paging channel the base

station notifies a mobile station located within the cell of an incoming packet data

transmission that is addressed to the mobile station (**see col. 5, lines 61-64 and**

claim 1).

The motivation would be in order **to support different bit rates (col. 1,**

lines 49-54).

Regarding claim 13, see similar rejection claim 10.

4.   Claims 11 and 14 is r ejected under 35 U.S.C. 103(a) as being unpatentable over

Hamalainen et al. **US RE39375** in view of **Soong** et al. **US 20070224989.**

Regarding claim 11, Hamalainen discloses a communication system

provided with a base station which notifies transmission control information

indicating a data transmission timing (**of which on the paging channel the**

base station notifies a mobile station **located within the cell of an incoming packet data transmission that is addressed to the** mobile station, **as well as information channels for transmitting the incoming packet data, the downlink control channels also using the downlink time slots(see claim 1)**, and a mobile station which transmits data to said base station according to the transmission control information notified from said base station, characterized in that said mobile station (**see claim 1 where the uplink logical channels being defined to comprise information channels reserved for** information transmission **and a reservation request channel (R), the uplink logical channels using the uplink time slots, making a request to the base station from the** mobile station **on the reservation request channel to reserve a connection for transmitting packet data**) . Hamalainen discloses a transmit buffer for storing data about a plurality of communication services on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel (col. 3, lines 35-41 where ti**me slots are reserved for the mobile station which use the packet services)**. Hamalainen discloses an amount-of-data information determining means for monitoring the data which are stored in said transmit buffer on a communication-service-by-communication-service basis or on a transmit-channel-by-transmit-channel basis so as to determine communication-service-by-communication-service or transmit channel-by-transmit-channel amount-of-data information (**see claim 1**) and a transmitting means for transmitting the communication-service-by

communication-service or transmit-channel-by-transmit-channel amount-of-data

information determined by said amount-of-data information determining means to

said base station (**see claim 20, where the uplink logical channels using the**

uplink time slots, making a request to the base station from the mobile

station).

However Hamalainen is silent on a scheduler for assigning resources

used for carrying out data transmission to said mobile station on a

communication-service-by-communication-service basis or on a transmit-

channel-by-transmit-channel basis according to the amount-of-data information

received from said mobile station. Soong teaches a scheduler for assigning

resources used for carrying out data transmission to said mobile station on a

communication-service-by-communication-service basis or on a transmit-

channel-by-transmit-channel basis according to the amount-of-data information

received from said mobile station (**see claim 14, a** scheduler **adapted to** assign

resources **of a plurality of sectors that participate in soft handoff for**

transmission **of particular data to a particular** mobile station).

Regarding claim 14, see similar rejection claim 11.

Conclusion

1.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303.

The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the

organization where this 12

application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-

3028.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist/customer service whose telephone number is (571) 272-

2600.

Amanuel Lebassi
        /A. L./
    09062009
        /NICK CORSARO/

    Supervisory Patent Examiner, Art Unit 2617